

REMARKS

Claims 36 and 42 have been amended. Claims 1-17 and 37-39 have been cancelled. No new matter has been added. Thus, claims 18-36 and 40-42 are pending in the above referenced application. In view of the above amendments and the following remarks, it is respectfully submitted that these claims are in condition for allowance.

Claim 42 stands objected to due to an informality. In view of the above amendments, it is respectfully submitted that this objected be withdrawn.

Claims 18, 36, and 39 stand rejected under 35 U.S.C. §102(b) as being anticipated by Lakin (U.S. Published Appln. No. 2003/0163202).

Claim 18 recites a prosthesis for replacing a surface of a ball of a ball-and-socket joint comprising “a spherical shell section having an outer surface that is configured to lie in an articular fossa and for attachment to a surface, the shell section having a cavity for receiving a bone end; and *a crown that partitions the cavity of the shell section into first and second cavities adapted to receive the bone end*; wherein the shell section comprises less than a hemisphere and a free edge of the crown lies in the same plane as a free edge of the shell section.”

In contrast, Lakin discloses a femoral head resurfacing system comprising a head component extending over a hemisphere and including a connector on an inner surface thereof for connecting to a stem component. In addition, the cavity within the inner area of the connector does not receive a bone end, but instead receives a portion of the stem component. Specifically, Lakin describes a substantially hemispherical head component 12 including a substantially hemispherical outer articulating surface 16 and a substantially hemispherical inner bearing surface 18. (*See* Lakin, p. 2, ¶ [0032]). A connection member 20 extends outwardly from the inner surface 18 to cooperate with a complementary connection member 22 on the stem

component 14. (*Id.* at p. 2, ¶ [0033]). Although the connection member 20 partitions the inner area of the head component 12 into first and second cavities, only one of the two cavities is adapted to receive bone. Particularly, the cavity surrounding the connection member 20 receives bone, while a female morse taper 24 of the connection member 20, which forms the second cavity, receives a male morse taper 26 of the stem component 14. (*Id.*; *see also* Fig. 1.)

The Examiner asserts that although Lakin does not designate the second cavity to be for receiving bone, the structure is nevertheless capable of receiving bone depending on the intended use of the device (*See* 7/15/08 Office Action, p. 2, ll. 4-6). The Examiner's assertion entails removing the stem component from the resurfacing system of Lakin. Applicants respectfully submit that the stem component disclosed by Lakin is necessary for the resurfacing system to function properly. Removing the stem component from the resurfacing system would compromise the strength and stability of the implanted system, which would be extremely detrimental to the patient. Furthermore, the stem component is present in every embodiment in the Lakin disclosure. So, it is evident that this component is a crucial element in resurfacing system of Lakin. Thus, it is respectfully submitted that Lakin does not show or suggest “a crown that partitions the cavity of the shell section into a first cavity and a second cavity, *the first and the second cavity adapted to receive the bone end,*” as recited in claim 18 and that claim 18 is allowable over Lakin. Because claims 19-35 and 42 depend on and therefore include all the limitations of claim 18, it is respectfully submitted that these claims are also allowable.

Claim 36 recites limitations substantially similar to those of claim 18 including “a crown that partitions the cavity of the shell section into a first cavity and a second cavity, *the first and the second cavities being adapted to receive portions of the bone end.*” Therefore, it is respectfully submitted that this claim and its dependent claims 37-40 are also allowable over Lakin for at least the same reasons previously mentioned with regard to claim 18.

Claims 19-21, 35, 40, and 42 stand rejected under 35 U.S.C. §103(a) for being obvious

with respect to Lakin. Claims 18-42 stand rejected under 35 U.S.C. §103(a) for being obvious with respect to Sutter et al. (U.S. Patent No. 4,332,036) (hereinafter "Sutter") in view of Lakin.

It is respectfully submitted that the recitation of a spherical shell and a crown in which "*a free edge of the crown lies in the same plane as a free edge of the shell section,*" as recited in claim 18 does not merely describe the size of the various components as the Examiner suggests. Rather, this limitation defines the relative size and locations of the recited features of the device - i.e., the structural qualities that determine the way in which the device will relate to the anatomy within which it is to be implanted. Specifically, the limitation indicates that the crown section is sized relative to the shell section so that the free edges of these components are coplanar. The absolute size of these components may be varied in any way so long as this geometric relation holds. For these reasons, it is respectfully submitted that the Examiner's dismissal of this relationship renders this rejection an improper hindsight reconstruction as none of the cited references provides any motivation for the proposed modification. Furthermore, as noted above, the relative dimensions of the components of such a prosthesis impact in various ways the interaction of the prosthesis with the adjacent anatomy and are therefore, non-trivial as would be understood by those skilled in the art.

Applicants therefore submit that Lakin does not cure this deficiency because Lakin fails to disclose or suggest that connection member 20 lies in the same plane as the shell section. Even if Lakin did disclose that connection member 20 lies in the same plane as the shell section, connection member 20 does not receive bone. Therefore, the combination of Lakin and Sutter does not yield the claimed invention.

Therefore, it is respectfully submitted that Lakin and Sutter, taken alone or in any combination, fail to teach "*a free edge of the crown lies in the same plane as a free edge of the shell section*" as recited in claim 18 and that claim 18 is therefore allowable. Because claims 19-35 and 42 depend on and therefore contain the limitations of claim 18, it is respectfully submitted

that these claims are also allowable.

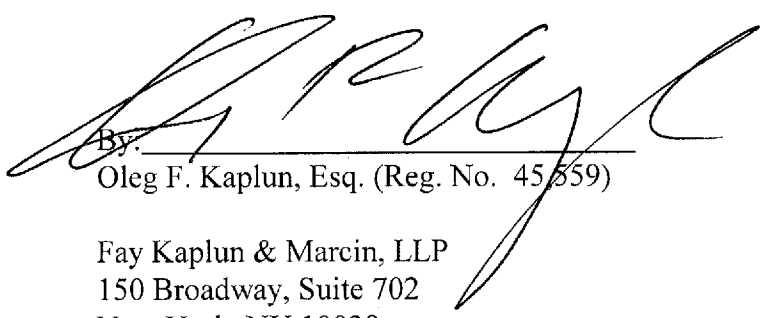
Claim 36 has been amended and recites limitations substantially similar to those of claim 18 including "*a free edge of the crown does not intersect a plane in which a free edge of the shell section lies.*" Therefore, it is respectfully submitted that claim 36 is also allowable for at least the same reasons previously mentioned with respect to claim 18.

Claim 41 also recites limitations substantially similar to those of claim 18. Therefore, it is respectfully submitted that claim 41 is also allowable for at least the same reasons previously mentioned with respect to claim 18.

In light of the foregoing, Applicants respectfully submit that all of the pending claims are in condition for allowance. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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